LAUDA

Operating Instructions

Remote Control FBT

LAUDA DR. R. WOBSER GMBH & CO.KG
P.O. Box 1251
97912 Lauda-Koenigshofen
GERMANY

Phone: (+49) (0)9343/ 503-0
Fax: (+49) (0)9343/ 503-222
E-mail info@lauda.de
Internet http://www.lauda.de

From Series Z 01
05/06 T
From software version 0.1
YAZE 0001

Safety notes

Before you operate this equipment please read carefully all the instructions and safety notes. If you have any questions please phone us!

Follow the instructions on setting up, operation etc. This is the only way to exclude incorrect operation of the equipment and to ensure full warranty protection.

- Transport the equipment with care!
- Equipment and its internal parts can be damaged:
  - by dropping
  - by shock.
- Equipment must only be operated by properly instructed personnel!
- Do not start up the equipment if
  - it is damaged
  - the supply cable is damaged.
- Have the equipment serviced or repaired only by properly qualified personnel!
- Switch off the equipment and pull out the mains plug for servicing and repair.

The Operating Instructions include additional safety notes which are identified by a triangle with an exclamation mark. Carefully read the instructions and follow them accurately!
Disregarding the instructions can have serious consequences, such as damage to the equipment, damage to property or injury to personnel!

We reserve the right to make technical alterations!

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Special Symbols:

Danger: This symbol is used where there may be injury to personnel through incorrect handling.

Note: Here special attention is drawn to some aspect. May include reference to danger.

Reference: Refers to additional information in other sections.

1 Equipment description

1.1 Basic principle

The remote control FBT can be operated in conjunction with all Type E/ RE 300 and Integral thermostats. Except for the adjustment of the overtemperature switch-off point, the unit contains the same operating and indicating functions which can be performed on the thermostat panel. Display and keys correspond to those of the basic thermostat. The indication takes place in parallel with the basic thermostat. Inputs can be made both on the basic thermostat and also on the remote control. Communication is via the serial interface of the basic thermostat. The interface RS 232 / RS 485 for an external computer (e.g. PC) is transferred to the remote control FBT when this is installed.

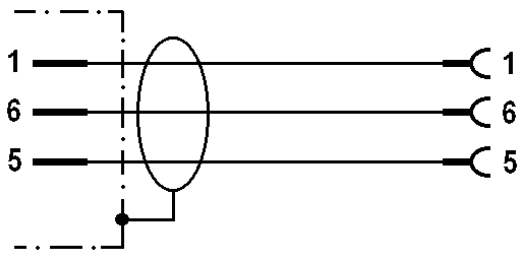
1.2 Equipment combination and components

The remote control FBT consists of a 19“ panel of 1/3 width and 4 height units (Cat. No. LWZ 028). It incorporates its own built-in power supply. A mains supply cable is included. A cable with 9-pin SUB-D plug and socket is required for communication. Such a cable can be provided in different ways.

1. LAUDA offers a cable 5 m long (Cat. No. EKS 057) or a cable with “length to customer specification“ (50 m max., Cat. No. UK 258).

2. Purchase of a commercially available RS 232 cable without twisted cores (do not use a null modem cable!).

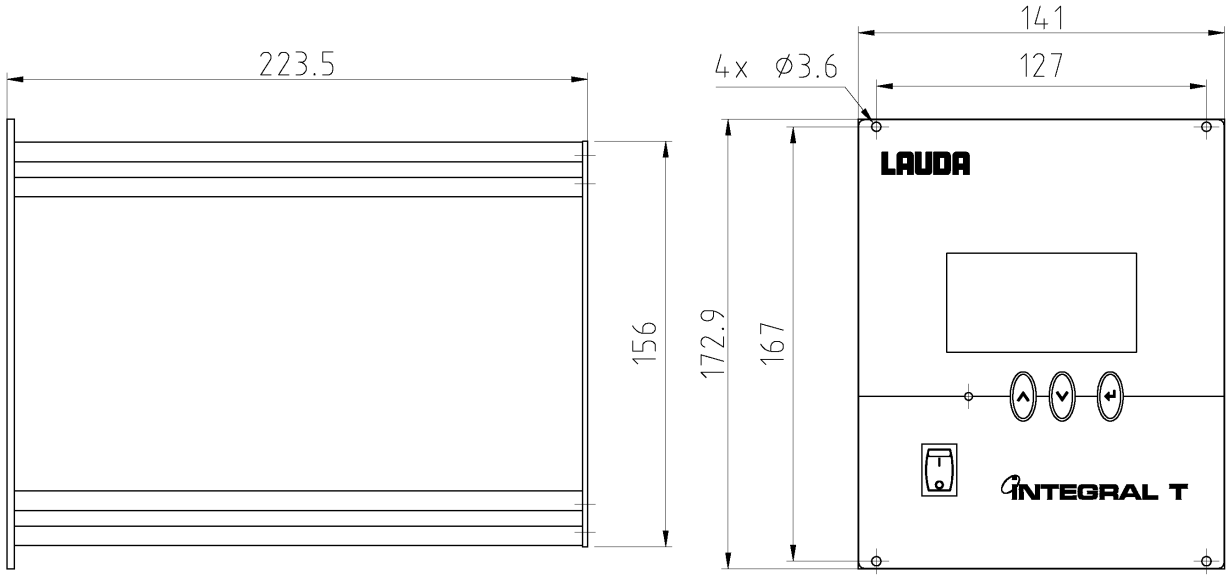
3. Manufacture by the user to the drawing below. Use screened cable. The screens should be connected to the connector case. Pins not in use must not be connected!



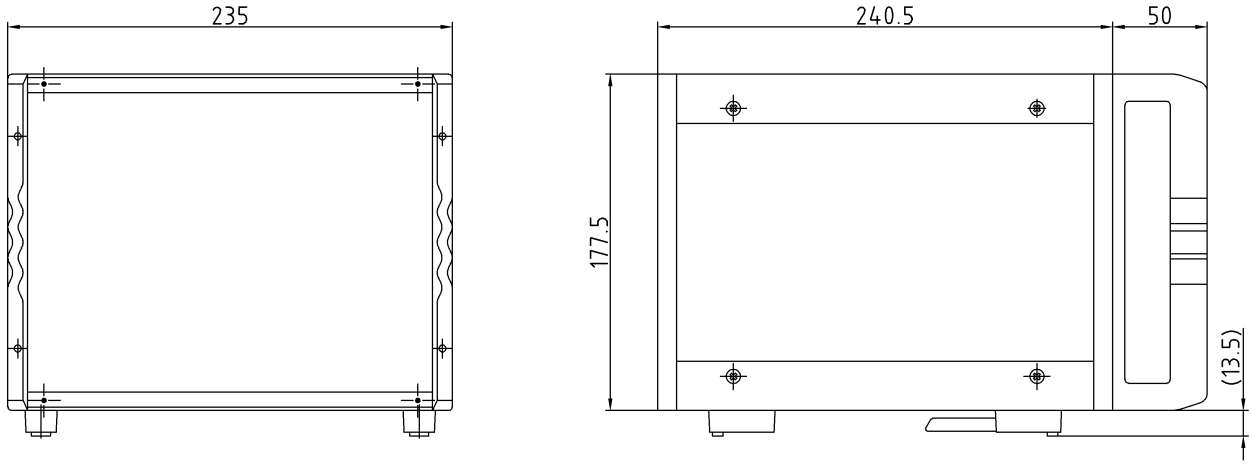
– Maximum length: 50 m.

In addition a 19“ case can be supplied (Cat. No. LWZ 027). This takes the remote control FBT and also provides space for additional 19“ panels of 1/6 width.

Remote control FBT Cat. No. LWZ 028 / LWZ 428

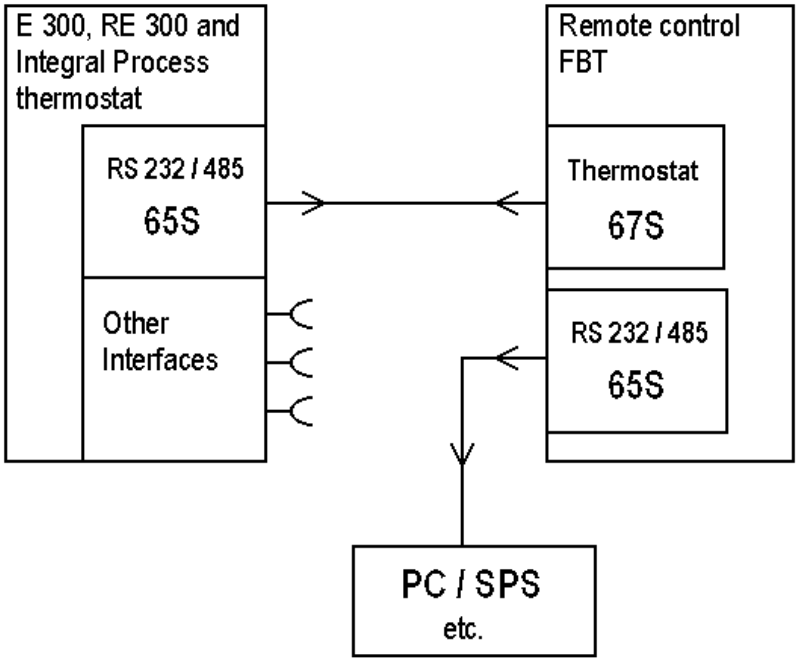


Bench case for FBT Cat. No. LWZ 027



1.3 Equipment arrangement

The remote control FBT can be used with all E 300 und RE 300 variants starting from Serial No. Z04 001 and also all Integral process thermostats. It requires software version 1.4 or above.



When using the remote control FBT the function of RS 232 / RS 485 is transferred to the socket 65 S on the FBT.

2 Unpacking

After unpacking, check first the equipment and accessories for possible transport damage. If unexpectedly any damage can be noticed on the equipment it is essential to notify the forwarding agent or the postal authorities so that an inspection can take place.

Standard accessories:

Mains supply cable	Cat. No. EKN 006
Operating Instructions	Cat. No. YAZE 0001

3 Preparation

- Install the unit in a 19“ system or bench case; this is essential to ensure protection against contact with internal parts!!
- Have the safety checked by a **qualified electrical technician!**

Make the connection from the thermostat to the remote control FBT ⇨ Section 1.2, 1.3.

4 Starting up

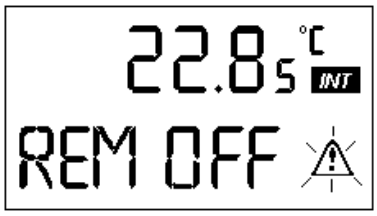
4.1 Connection to the supply

Compare the information on the equipment label with the supply voltage.

- Connect the equipment only to a socket with a protective earth (PE) connection.
- No warranty when the equipment is connected to the wrong supply!

4.2 Switching on

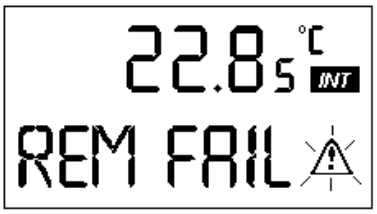
- Switch on thermostat and remote control FBT at the mains switch. The green LED on the FBT lights up.
- Display on the FBT shows **“No Unit“**
- On the thermostat, activate remote control in the “Parameter“ menu (PARA).
  ⇨ Thermostat Operating Instructions under “Serial Interface Parameters / Remote Control“.



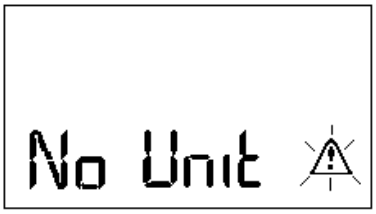
- To activate the remote control, switch the parameter REM on the thermostat to **“ON“**.
- The same information is now shown on the thermostat and on the remote control. The keys on both units are activated.

4.3 Error

If there has already been communication between remote control and thermostat, check both units to ensure that there is still some communication. If the connection is interrupted, both units show an error message and there is a beep. If one unit is switched off, the other unit again shows an error message and there is a beep.



– Message on the thermostat.



– Message on the remote control.

– The Error message can be acknowledged with the key. When the connection has been restored, acknowledgment is required only on the thermostat.

4.4 Switch-on and switch-off

Switching off:

It is useful to switch off the equipment combination in the following sequence in order to avoid unnecessary error messages which have to be acknowledged (reset).

Thermostat **OFF**: There is an error message **"No Unit"** on the remote control FBT.

Remote control FBT **OFF**.

Switching on:

The order is immaterial!

4.5 Key inhibit (KEY)

– Only the keys on the thermostat can be inhibited. Inhibiting and de-inhibiting can be operated either from the thermostat or from the remote control.
⇨ See Thermostat Operating Instructions!

5 Maintenance

5.1 Cleaning

Before cleaning the equipment, pull out the mains plug!

The equipment can be cleaned with water with the addition of a few drops of detergent (washing-up liquid), using a moist cloth.

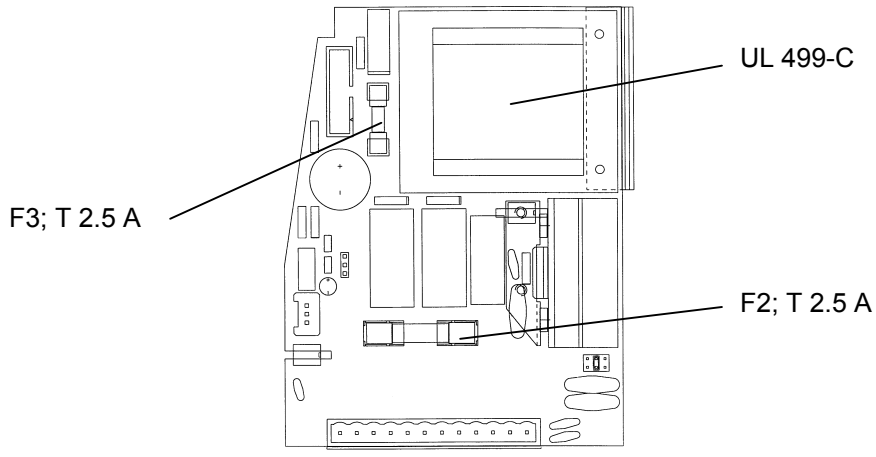
Water must not enter the equipment!

- Carry out appropriate de-contamination if dangerous material has been spilled on or inside the unit.
- Method of cleaning and de-contamination are decided by the special knowledge of the user. In case of doubt contact the manufacturer.

5.2 Maintenance and repair

- Before any maintenance and repair work, pull out the mains plug!
- Repair on the equipment must only be carried out by properly qualified personnel!

- If a fuse has blown (→ mains supply indicator no longer alight) fit only fuses as specified (2 x T 2.5 A, size 5 x 20→ fuses are located on the equipment).



Before you return the equipment it is advisable to contact our Technical Service department.

LAUDA Service Center
Phone: (+49) (0)9343/ 503-236

– If the equipment has to be returned to the factory, please ensure that it is packed carefully and properly. LAUDA accepts no responsibility for damage due to unsatisfactory packing.

5.3 Ordering spares

When ordering spares please quote type and serial number from the equipment label. This avoids queries and supply of incorrect items.

Responsible for all service problems:

LAUDA Service Center
Phone: (+49) (0)9343/ 503-236

We shall always be happy to deal with queries and to receive suggestions and criticism.

LAUDA DR. R. WOBSER GMBH & CO.KG
P.O. Box 1251
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Germany
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Fax: (+49) (0)9343/ 503-222
E-mail info@lauda.de
Internet http://www.lauda.de

6 Technical data

		Module FBT
Ambient temperature range	°C	5 - 40
Dimensions FBT WxHxD	mm	141 x 172.9 x 223.5
Module dimensions FBT		width 1/3 19“; height 4U
Weight	kg	1.9
Mains supply	V;Hz	230;50/60 115;60 Protection Class 1 to DIN VDE 106-1
Power consumption	W	12
Cat. No. 230V;50/60Hz 115V;60Hz		**LWZ 028** **LWZ 428**

Units to EU Directives 89/ 336/ EWG (EMC) and 73/ 23/ EWG (low-voltage) with CE mark.

Bench case for FBT Optional accessory		
Dimensions WxHxD	mm	235 x 191 x 240.5
Weight	kg	2.4
Cat. No.		**LWZ 027**

We reserve the right to make technical alterations!

BESTÄTIGUNG / CONFIRMATION / CONFIRMATION

An / To / A:
LAUDA Dr. R. Wobser • LAUDA Service Center • Fax: +49 (0) 9343 - 503-222

Von / From / De :

Firma / Company / Entreprise: _____

Straße / Street / Rue: _____

Ort / City / Ville: _____

Tel.: _____

Fax: _____

Betreiber / Responsible person / Personne responsable: _____

Hiermit bestätigen wir, daß nachfolgend aufgeführtes LAUDA-Gerät (Daten vom Typenschild):
We herewith confirm that the following LAUDA-equipment (see label):
Par la présente nous confirmons que l'appareil LAUDA (voir plaque signalétique):

Typ / Type / Type :	**Serien-Nr. / Serial no. / No. de série:**

mit folgendem Medium betrieben wurde
was used with the below mentioned media
a été utilisé avec le liquide suivant

_____

_____

_____

_____

Darüber hinaus bestätigen wir, daß das oben aufgeführte Gerät sorgfältig gereinigt wurde, die Anschlüsse verschlossen sind, und sich weder giftige, aggressive, radioaktive noch andere gefährliche Medien in dem Gerät befinden.

Additionally we confirm that the above mentioned equipment has been cleaned, that all connectors are closed and that there are no poisonous, aggressive, radioactive or other dangerous media inside the equipment.

D'autre part, nous confirmons que l'appareil mentionné ci-dessus a été nettoyé correctement, que les tubulures sont fermées et qu'il n'y a aucun produit toxique, agressif, radioactif ou autre produit nocif ou dangeureux dans la cuve.

Stempel **Seal / Cachet.**	**Datum** **Date / Date**	**Betreiber** **Responsible person / Personne responsable**

LAUDA DR. R. WOBSER GmbH & Co. KG
Pfarrstraße 41/43
D - 97922 Lauda-Königshofen
Internet: http://www.lauda.de
Tel: +49 (0)9343 / 503-0
Fax: +49 (0)9343 / 503-222
E-mail: info@lauda.de